

WHAT IS CLAIMED IS:

1. A liquid crystal display (LCD) adaptive to a viewing angle, comprising:

a driving voltage generator for generating first and second voltages based on an externally input power;

5 a voltage divider for converting a level of the first voltage based on the viewing angle of an LCD panel to generate a third voltage;

a viewing angle generator for generating information about the viewing angle based on the second and third voltages; and

10 a gamma curve determiner for selecting a liquid crystal gamma curve corresponding to received information about the viewing angle, and controlling a gray level with a gamma voltage value based on the selected liquid crystal gamma curve.

2. The LCD as claimed in claim 1, wherein the first voltage is a gate-on/off voltage, and the second voltage is an analog driving voltage.

15 3. The LCD as claimed in claim 1, wherein the voltage divider comprises a variable resistor for variably generating a resistance value based on the viewing angle of the LCD panel, and outputs the third voltage using the variable resistor.

20 4. The LCD as claimed in claim 3, wherein the rotational axis of the variable resistor is connected to that of a hinge supporting an LCD module so as to automatically select the gamma curve by operation of a user.

5. The LCD as claimed in claim 4, wherein the variable resistor is of a dial or sliding type.

6. An LCD adaptive to a viewing angle, comprising:

5 a driving voltage generator for generating first and second voltages based on an externally input power;

10 a decoder for decoding information of the viewing angle as received by operation of a user;

15 a voltage divider comprising a plurality of resistors, for selecting any one of the resistors based on the decoded information of the viewing angle, and converting a level of the first voltage based on the selected resistor to generate a third voltage;

20 a viewing angle generator for generating information about the viewing angle based on the second and third voltages; and

25 a gamma curve determiner for selecting a liquid crystal gamma curve corresponding to received information about the viewing angle, and controlling a gray level with a gamma voltage value based on the selected liquid crystal gamma curve.

7. The LCD as claimed in claim 6, wherein the first voltage is a gate-on voltage, and the second voltage is an analog driving voltage.

20 8. An LCD adaptive to a viewing angle, comprising:
a driving voltage generator for generating a first voltage based on an externally input power;

1 a decoder for decoding information of the viewing angle as received by
operation of a user;

5 a power selector comprising a plurality of voltage sources, for selecting any one
of the voltage sources based on the decoded information of the viewing angle to
generate a second voltage;

10 a viewing angle generator for generating information about the viewing angle
based on the first and second voltages; and

15 a gamma curve determiner for selecting a liquid crystal gamma curve
corresponding to the received information about the viewing angle, and controlling a
gray level with a gamma voltage value based on the selected liquid crystal gamma
curve.

20 9. The LCD as claimed in claim 8, wherein the first voltage is an analog driving
voltage.

25 10. An LCD adaptive to a viewing angle, comprising:

30 a driving voltage generator for generating an analog driving voltage based on
an input power externally received via a first input;

35 a viewing angle generator for generating information about the viewing angle
with a level of the analog driving voltage dropped based on the viewing angle, and
feeding the level-dropped analog driving voltage back to a second input of the driving
voltage generator; and

40 a gamma curve determiner for selecting a liquid crystal gamma curve

corresponding to the received information about the viewing angle, and controlling a gray level with a gamma voltage value based on the selected liquid crystal gamma curve.

5 11. The LCD as claimed in claim 10, wherein the viewing angle generator comprises:

a first resistor receiving the analog driving voltage at one terminal thereof; and

10 a second resistor having one terminal connected to a reference voltage or ground, and another terminal connected to another terminal of the first resistor, for lowering a level of the analog driving voltage and feeding the level-dropped analog driving voltage back to the second input of the driving voltage generator.

15 12. The LCD as claimed in claim 11, wherein either the first resistor or a reference voltage is varied depending on the viewing angle of an LCD panel.

13. A notebook computer comprising:

a variable resistor;

an LCD panel;

wherein the variable resistor varies voltage application to liquid crystals constituting the
20 LCD panel, with voltage application being a function of visual field angle.

14. The notebook computer of claim 13, wherein the variable resistor is mounted on a hinge supporting the LCD panel, with the hinge having a rotational axis

connected to that of the variable resistor.

15. A method for LCD gamma curve correction, comprising the steps of:

plotting a plot of $[(AVDD - V_{CE} + V_{BE}) / (Von - AVDD + V_{CE} - V_{BE})] \times R1$,

5 wherein AVDD is a first voltage generated as an analog driving voltage; V_{CE} is collector-emitter electrode voltage;

V_{BE} is a base-emitter electrode voltage; $R1$ is a resistor; and

adjusting an LCD gamma curve based on the plot.

10 16. A method of reducing flicker for an LCD having a gamma curve, comprising

the steps of:

plotting a plot of $[(AVDD - V_{CE} + V_{BE}) / (Von - AVDD + V_{CE} - V_{BE})] \times R1$,

15 wherein AVDD is a first voltage generated as an analog driving voltage; V_{CE} is collector-emitter electrode voltage;

V_{BE} is a base-emitter electrode voltage; $R1$ is a resistor; and

adjusting the LCD gamma curve based on the plot.

17. A method of enhancing user visibility of a notebook computer comprising an

20 LCD panel, comprising at least the steps of:

(a) varying voltage application to liquid crystals, wherein amount of voltage

applied is a function of visual field angle.

18. The method of claim 17, wherein enhanced gray color representation is

provided by said varying voltage application as a function of visual field angle, compared to not varying voltage application as a function of visual field angle.